

## **REMARKS**

### **I. Summary of Office Action**

In the Office Action mailed on January 19, 2006, the Examiner rejected claims 1-9, 11, and 16-18 under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent Application Pub. No. 6,212,783 (Ott) and rejected claim 10 under 35 U.S.C. § 103(a) as being allegedly obvious over a combination of Ott and Applicants' admitted prior art (AAPA).

### **II. Status of the Claims**

Presently pending are claims 1-11 and 16-18 of which claims 1, 11, and 16 are independent and the remainder are dependent. These claims are directed to a 360-degree magnetoresistive rotary position sensor comprising a magnetic linear sensor and a magnetic angular sensor on a common semiconductor substrate. The linear sensor on the common semiconductor substrate detects the sense of a magnetic field, and the angular sensor on the common semiconductor substrate detects an angular position of the magnetic field up to 180 degrees.

### **III. Response to Rejections**

#### **a. Response to 35 U.S.C. § 102(e) Rejection of Claims 1-9, 11, and 16-18**

As noted above, the Examiner rejected claims 1-9, 11, and 16-18 under 35 U.S.C. § 102(e) as being allegedly anticipated by Ott. Of these claims, claim 1, 11, and 16 are independent and the remaining are dependent.

Under MPEP § 2131, in order for an Examiner to establish that a reference anticipates a claim, the Examiner must establish that the reference teaches all of the limitations of the claim.

Applicants submit that the rejections of claims 1-9, 11, and 16 are improper, because the Examiner has not established that Ott teaches all of the limitations of the claims. At a minimum for instance, Ott does not teach a 360 degree position sensor system comprising: **a semiconductor** substrate.

At best, Ott is directed to a system for detecting an angle of rotation in which two integrated circuit sensor elements (IC1 and IC2) are located on a substrate (See, Ott, Figure 1, column 4, lines 8-10). These two integrated circuits can be “made separately by different production processes” and the “chips produced separately are connected to one another by conductor pins, which are bent at 90 degrees” (See, Ott, column 5, lines 43-50).

Applicants’ specification, however, explains a system for detecting an angle of rotation in which a magnetic linear sensor and a magnetic angular sensor are “integrated on a common **semiconductor substrate**” (See, Applicants’ specification, page 4, line 1-3). The “semiconductor substrate 130 illustrated in Figures 1 and 2, on which the linear sensor 102 and angular sensor 104 are **formed**, might be produced in an integrated circuit process” (See, Applicants’ specification, page 11, lines 18-21).

Because Ott does not teach two sensors integrated on a common **semiconductor substrate**, Ott does not anticipate claims 1, 11, and 16. Consequently, Applicants submit that claims 1, 11, and 16 are allowable. Further, Applicants submit that claims 2-9 and 17-18 are allowable for at least the reason that they depend from one of the allowable claims 1 and 16.

#### **b. Response to 35 U.S.C. § 103(a) Rejection of Claim 10**

As noted above, the Examiner rejected claim 10 as being obvious over a combination of Ott and Applicants’ admitted prior art (AAPA). Claim 10 depends from independent claim 1.

Under M.P.E.P. § 2143, in order for an Examiner to establish a *prima facie* case of obviousness of a claim over a combination of references, the Examiner must establish that the

combination discloses or suggests every element recited in the claim. Applicants respectfully traverse the obviousness rejection of claims because the combination of Ott and AAPA does not teach every element of independent claim 1. At a minimum, for instance, the combination of Ott and Applicants' Admitted prior art fails to teach sensors located on a **semiconductor** substrate.

For convenience, Applicants use the Examiner's term "AAPA". However, Applicants object to the use of that term because Applicants make no admissions that anything is "prior art", as the term is typically understood for patent examination purposes.

For the reasons set forth above, Applicants submit that Ott fails to teach this claimed element. Further, Applicants submit that AAPA fails to make up for the deficiency of Ott in that regard. In fact, it appears that AAPA suffers from the same deficiency as Ott.

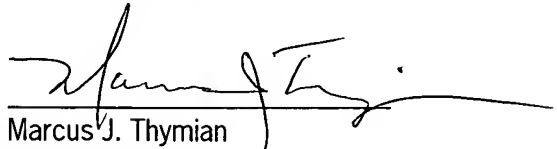
Because the combination of Ott and AAPA fails to disclose or suggest all of the limitations of claim 1, a *prima facie* case of obviousness of claim 1 over the combination of Ott and AAPA has not been made. Applicants submit that the claim 10 is allowable at least for the reason that it depends from an allowable claim 1.

#### **IV. Conclusion**

In light of the above amendments and remarks, Applicants submit that the present application is in condition for allowance and respectfully request notice to this effect. The Examiner is requested to contact Applicants' representative below if any questions arise or she may be of assistance to the Examiner.

Date: April 18, 2006

Respectfully submitted,

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